THE BIRDS OF BATJAN.

By ERNST HARTERT.

THE beautiful, well-known island of Batjan, close to the southern peninsula of the large island of Halmahera (or Gilolo) in the northern Moluccas, has been rather well explored with regard to its ornithology. Mr. A. R. Wallace, the celebrated author of the *Malay Archipelago*, was the first ornithologist to collect birds on Batjan. Although birds from the Moluccas had reached Europe, especially Holland, long ago, mostly from Ternate, or at least *via* Ternate, in the north, and from Amboina in the south, it seems that Batjan birds were unknown, or else such a remarkable bird as *Semioptera wallacei* would have been known before Wallace's memorable visit to Batjan. Moreover, Wallace discovered not only the *Semioptera*, but a good number of other new species on Batjan. They are mostly described by G. R. Gray in the *Proceedings of the Zoological Society of London*, 1860. pp. 341—366.

About the same time Dr. Bernstein collected on Batjan, and his very extensive collection is preserved in the Leyden Museum.

The yacht *Marchesa* visited Batjan in 1883, and a list of the collections made on that island by Messrs. Powell and Guillemard is given in the *Proceedings of the Zoological Society* 1885. pp. 561—576. There is also a list of the birds collected by the naturalists of the *Marchesa* in Guillemard's interesting book *Cruise of the Marchesa*; but that list is almost useless, as the islands whence the various species came are not mentioned.

In 1882 and 1892 Dr. Platen collected on Batjan, and Mr. Nehrkorn has presented us with a list of his birds, together with all the species known from that island, in the *Journal für Ornithologie* 1894. pp. 157—161. This list contains in all 125 species known to have occurred on Batjan, but two or three require confirmation.* Recently Count Berlepsch enumerated the birds brought home from Batjan by Prof. Kükenthal, but they were only 35, of which only a few were of special interest (*Abh. Senckenb. Ges.* xxv. 2. pp. 311—316).

Faunistically Batjan agrees with its larger sister island Halmahera; but although so near to the latter, some of the forms differ from the Halmaheran ones, especially the Bird of Paradise, *Semioptera wallacei*, which is represented on Halmahera by *Semioptera wallacei halmaherae*.

While neither Platen's magnificent collections nor those of Guillemard and Kükenthal contained any novelties, the material sent recently to the Tring Museum by Doherty and Waterstradt, especially the latter, has made us acquainted with some interesting novelties, partly forms new to science, partly not hitherto known to occur in the Moluccan archipelago. These discoveries are merely due to the fact that these collectors ascended the mountains in the interior. Doherty reached elevations of 4000 ft., Waterstradt or his collectors those of [illegible] 7000 ft. The new forms found on these high mountains are (cf. *Muscicapula maculata westermanni*, *Muscicapula hyperythra pallidipectus*, *Cryptolopha [illegible] waterstradti*,

* In the *Natuurkundig Tijdschr. voor Nederl.-Indië* lvii., *Aflevering* [illegible] 171—252, Dr. A. G Vorderman published an article "Molukken-Vogels," in which a number of [illegible] birds are mentioned.

Phylleryates everetti dumasi) mostly of Indo-Malayan affinities, and prove again the existence of a formerly unknown Indo-Malayan element on the high mountains of the Moluccas, which I mentioned as being found on Buru in Novitates Zoologicae VII. 1900. pp. 226, 238, 239.

The lowlands of the various Moluccan islands are now more or less well known, but it is in the higher mountains that ornithologists can still make interesting discoveries, and I hope to be able to record some more before long.

1. Spizaëtus gurneyi (Gray).

Aquila (Heteropus?) gurneyi G. R. Gray, *P. Z. S.* 1860. p. 342. Pl. 169 ("Batjan").*

Batjan : Wallace, Bernstein, Platen.

2. Cuncuma leucogaster (Gm.).

This widespread species occurs on the coasts of all the Moluccan islands, and has been recorded from Batjan by Wallace.

3. Pandion haliaëtus leucocephalus Gould.

Batjan : Bernstein, Platen.

4. Haliastur indus girrenera (Vieill.).

Batjan : Bernstein, Wallace, Kükenthal.
(Mr. Dumas obtained it also on Morty).

5. Baza subcristata rufa Schleg.

(Cf. Nov. Zool. VIII. p. 379).

♂, Batjan, August 1897, W. Doherty coll. Batjan : Bernstein, Wallace.

6. Tinnunculus moluccensis Bp.

Batjan : Bernstein, Wallace, Platen, Kükenthal, Guillemard, Vorderman. Batjan : Doherty, Waterstradt, in Tring Museum.

"Iris yellow, feet ochreous, claws black, bill leaden-blue with black tip." ♂ ad., Doherty.

(Morty : Bernstein ; Dumas, in Mus. Tring.)

7. Astur henicogrammus Gray.

Astur henicogrammus Gray, *P. Z. S.* 1860. p. 343 ("Gilolo") (juv.).
Astur muelleri Wallace, *P. Z. S.* 1865. p. 475 ("Gilolo") (adult).

Batjan : Platen (4 juv.). Batjan : ♀ juv. in Mus. Tring, collected by Waterstradt's natives.

This species is, of course, utterly different from *A. griseogularis*, being much smaller, deep bluish slate above, without a rufous collar, and having a totally different young, barred also on the breast.

* There is in the British Museum a specimen labelled "Waigiu," marked as the type of the species. This cannot be correct. The bird was described from Batjan, and no birds from Waigiu had at that time reached England. The so-called types of Mr. Wallace were evidently marked as the types long after they were described, but not at the time when described by Gray. They are not, therefore, absolutely reliable.

8. **Astur griseogularis** Gray.

Astur griseogularis G. R. Gray, *P. Z. S.* 1860. p. 343 ("Batchian, Gilolo and Ternate": typical locality Batjan; cf. *Cat. B.* i. p. 123).

Batjan: Wallace, Platen, Kükenthal. In Mus. Tring: Platen, Doherty, Waterstradt.

"Iris gelb, Schnabel schwarz, an der Wurzel bläulich, Wachshaut gelbgrün (♀) oder gelb (♂)." (Platen).

The young are barred on the abdomen, striped on the breast, thus differing widely from those of *A. henicogrammus*. The adult birds are very variable, some being heavily barred with whitish, others indistinctly barred or almost quite uniform. From the specimens before me I conclude that the barred ones, which have also a darker ground-colour, must be the less aged ones.

(Mr. Dumas sent several skins from Morty, where it was also obtained by Wallace, and these—though much larger than *A. g. obiensis*—seem mostly a little smaller.)

9. **Astur soloensis** (Horsf.).

Falco soloensis Horsf., *Trans. Linn. Soc.* xiii. 1821. p. 137 (Java).

Batjan: Wallace, (Morty: Bernstein, Dumas, in Mus. Tring).

10. **Accipiter erythrauchen** Gray.

Accipiter erythrauchen G. R. Gray, *P. Z. S.* 1860. p. 344 ("Gilolo").

Batjan: Bernstein, Platen, Kükenthal, Waterstradt.

11. **Pisorhina manadensis leucospila** (Gray).

Ephialtes leucospila G. R. Gray, *P. Z. S.* 1860. p. 344 ("Batjan and E. Gilolo: original locality Batjan; cf. *Cat. B.* ii. p. 75, type in Brit. Mus.).

♂ ad. and juv., Batjan: Waterstradt coll. Batjan: Platen.

12. **Ninox rufostrigata** (Gray).

Athene rufostrigata G. R. Gray, *P. Z. S.* 1860. p. 344 ("Gilolo").

Batjan: "♂" Waterstradt coll., August 1902. "♀" juv., September 1897, W. Doherty coll.

"Iris yellow, feet whitish, claws black, bill bluish white, dark at tip" (W. D.).

13. **Ninox hypogramma** (Gray).

Athene hypogramma G. R. Gray, *P. Z. S.* 1860. p. 344 ("Batjan and Gilolo": typical locality Batjan, being the first-mentioned one).

Batjan: Wallace, Bernstein. Batjan: ♀ ad., August 1897, W. Doherty coll. Batjan: 2 ♂♂, 1 ♀ ad., July August 1902, Waterstradt coll. The *females* seem to be much larger.

14. **Cacatua albus** (Müll.).

Batjan: Bernstein, Wallace, Platen, Guillemard, Vorderman, Waterstradt.

15. **Tanygnathus megalorhynchos** (Bodd.).

Batjan: Bernstein, Wallace, Platen, Kükenthal.

16. Loriculus amabilis Wall.

Loriculus amabilis Wallace, *Ibis* 1862. p. 349 (Halmahera).

Batjan, according to Bernstein. It is strange that neither Wallace, Platen, Kükenthal, nor Doherty and Waterstradt have found it on Batjan !

17. Geoffroyus cyanicollis (S. Müll.).

Psittacus cyanicollis S. Müll., *Verh. Land-en Volkenk.* pp. 108. 182 ("Gilolo"—not Celebes !).

Batjan : Wallace, Bernstein, Beccari, Guillemard, Platen, Vorderman, Kükenthal, Doherty, Waterstradt.

18. Eclectus roratus (P. L. S. Müll.).

Batjan : Bernstein, Wallace, Guillemard, Platen, Vorderman, Kükenthal, Doherty, Waterstradt.

(Morty : Bernstein ; Dumas in Mus. Tring.)

19. Lorius garrulus flavopalliatus Salvad.

Lorius flavopalliatus Salvad., *Ann. Mus. Civ. Gen.* x. 1877. p. 33.

Batjan : Wallace, Bernstein, Beccari, Doherty, Platen, Vorderman, Waterstradt. (Morty : Bernstein, Wallace, Dumas.)

20. Eos riciniatus (Bechst.).

Psittacus riciniatus Bechstein, *Kurze Uebers.* p. 69 (1811) ("Moluckische Inseln" : I substitute Ternate as the typical habitat).

Batjan : Wallace, Bernstein, Guillemard, Platen, Vorderman, Doherty, Waterstradt.

21. Hypocharmosyna placentis (Temm.).

Batjan : Wallace, Platen, Doherty, Waterstradt.

"Iris orange-red, feet coral-red, claws grey ; bill, upper mandible vermilion, lower mandible rose-colour." (W. Doherty).

22. Cuculus saturatus Blyth.

Batjan : in Mus. Lugd. (Finsch, *Notes Leyden Mus.* xxiii. p. 103).

23. Cacomantis insperatus (Gould).

Batjan (common) : Beccari, Bernstein (Mus. Leyden), Platen, Kükenthal, Doherty, Waterstradt. Thirteen specimens in the Tring Museum. There is much variation in these birds.

The underside is cinnamon-rufous, or partly suffused with grey, or almost entirely ashy greyish ; the colour of the upperside is (in freshly moulted examples) deeper, or (in worn specimens) paler.

The wing varies from 122—133 mm.

24. Misocalius palliolatus (Lath.).

(Finsch, *Notes Leyden Mus.* xxii. p. 92, is of opinion that the description of Latham's *Cuculus palliolatus* is so bad that it cannot be accepted as the basis for

the specific name of our bird. In that case the name *Misocalius osculans* (Gould) would have to be accepted).

Bernstein obtained this bird on Batjan, and the specimen is in the Leyden Museum. Probably not resident, but only a straggler to the Moluccan Islands.

25. **Surniculus musscheubroeki** Mey.

Surniculus musschenbrocki A. B. Meyer, Rowley's *Orn. Miscell.* iii. p. 164 (1878 : Batjan).

Dr. Meyer received this species direct from Batjan. It was also obtained there by Platen and Kükenthal, but neither Doherty nor Waterstradt found it.

26. **Eudynamis honorata** subsp. ?

Bernstein collected specimens of an *Eudynamis* on Batjan and Halmahera. Salvadori refers these with some doubt to *E. orientalis* ; Shelley refers a young bird from Halmahera to *E. orientalis*. Dr. Finsch (*Notes Leyden Mus.* xxii. p. 103) refers the specimens from Batjan and Halmahera to *E. honorata*. As this ornithologist, however, does not separate *E. honorata honorata*, *E. honorata malayana*, and *E. honorata mindanensis*, and I have not been able to examine an adult individual from the North Moluccas, I do not know to which form they belong, but expect them to be separable as a new subspecies.

27. **Scythrops novaehollandiae** Lath.

Batjan : Wallace, Bernstein, Platen, Vorderman, Waterstradt.

28. **Centropus goliath** Bp.

Centropus goliath Bonaparte, *Consp. Av.* i. p. 108 (1850 : Halmahera, ex Forsten MS. in Mus. Lugd.).

Batjan : Wallace, Bernstein, Beccari, Guillemard, Vorderman, Platen, Kükenthal, Doherty, Waterstradt.

"Iris very deep brown (♂ ♀), bill and feet black." (W. Doherty.)

(Dumas obtained *C. goliath* also on Morty.)

29. **Centropus javanicus** (Dumont).

Batjan : Bernstein, Platen, Kükenthal ; Doherty, ♂ ad., August 1897.

(Dumas obtained a young bird on Morty Island.)

30. **Rhyticeros plicatus** (Penn.).

Batjan : Wallace, Beccari, Guillemard, Platen, Kükenthal, Vorderman, Doherty.

31. **Merops ornatus** Lath.

Batjan : Finsch, Kükenthal, Doherty (frequent in August 1897), Waterstradt (August 1902).

In all the specimens before me from Batjan the black throat patch is largely developed, the bills are not at all longer than in Australian specimens, nor is there any other difference.

32. Alcedo ispida hispidoides Less.

Batjan : Bernstein, Waterstradt, Guillemard, Platen.

33. Alcyone azurea affinis Gray.

Batjan : Wallace, Bernstein, Platen, Kükenthal, Vorderman.
Dumas collected this species on Morty. (Cf. Nov. Zool. 1901. p. 144.)

34. Alcyone pusilla (Temm.).

Batjan : Platen, one *male*.

35. Ceyx lepida uropygialis Gray.

[*Ceyx lepida* Temm. *Pl. Col.* 595. f. 1 (1835 : Amboina).]
Ceyx uropygialis G. R. Gray, *P. Z. S.* 1860. p. 348 (Batjan and Ternate; typical locality therefore Batjan).
Ceyx lepida uropygialis Hartert, Nov. Zool., VIII. 1901. p. 97.

Batjan : Wallace, Bernstein, Beccari, Platen, Doherty, Waterstradt.

36. Tanysiptera hydrocharis margarethae Heine.

[*Tanysiptera hydrocharis* Gray, *P. Z. S.* 1858. pp. 172. 190 ("Aru Islands").]
Tanysiptera margarethae Heine, *J. f. O.* 1859. p. 406 ("Angeblich von Neuguinea, wahrscheinlich aber von einer der benachbarten Inseln" : I accept Batjan as the typical locality!).

Batjan : Wallace, Bernstein, Guillemard (Powell), Platen, Kükenthal, Doherty, Waterstradt.

"Iris very deep brown, feet pale olive-brownish, claws darker, bill scarlet." (W. Doherty).

(In Novitates Zoologicae VIII. pp. 158—162 Mr. Rothschild and I gave a review of the forms of this group of *Tanysiptera*. We there grouped ten forms as subspecies of one species, calling them *T. dea dea*, *T. d. riedeli*, *T. d. ellioti*, *T. d. rosseliana*, *T. d. margarethae*, *T. d. acis*, *T. d. obiensis*, *T. d. hydrocharis*, *T. d. galatea*, *T. d. meyeri*.

Authors having quoted the 12th edition of Linnaeus only, we did not compare the 10th edition, but in doing so now I find that it is impossible to accept the name *dea*. Linnaeus (ed. x. *Syst. Nat.* i. p. 116, 1758) names merely Edwards' "Swallow-tailed Kingfisher" (Pl. X.), which is no Kingfisher, but one of the *Galbulidae*. In the 12th edition the diagnosis of the *Galbula* is repeated, but instead of quoting Edwards, Linnaeus quotes Seba and Brisson, who, under the name of "*Avis paradisiaca ternatana*" and "*Ispida ternatana*" have described the form of *Tanysiptera* inhabiting Amboina and Ceram, which they wrongly attributed to the island of Ternate, and which is now—cf. Salvadori, *Orn. Pap.* i. p. 436 ; Sharpe, *Cat. B.* xvii. p. 310—known as *Tanysiptera dea*. It is, nevertheless, quite impossible to accept the name *dea*. First of all we now begin our nomenclature 1758 (10th edition of Linnaeus), and in 1758 "*Alcedo dea*" refers to Edwards' Pl. X., which is a *Galbula*, Seba being quoted merely as a doubtful synonym. In 1766 (12th edition of *Linnaeus* i. p. 181) the same diagnosis "A. rectricibus duabus longissimis medio attenuatis, corpore nigro-caerulescente, alis virescentibus") is repeated, with the locality Surinam, though the original, from which the diagnosis and locality are taken—*i.e.* Edwards' Pl. X.—is omitted,

and instead Seba's and Brisson's Kingfisher is most erroneously added as a synonym. How it was possible to identify Edwards' and Seba's figures as the same bird is unexplainable; but Linnaeus committed several similar atrocities, and his carelessness cannot induce us to accept his name "*dea*" for the Amboinese Kingfisher. This group of *Tanysiptera* should have the following nomenclature:—

a. Tanysiptera hydrocharis naïs Gray.

Tanysiptera naïs Gray, *P. Z. S.* 1860. p. 346. "Amboyna," type in coll. Wallace. (In the British Museum—cf. *Cat. B.* xvii. p. 311—a skin from Ceram is marked as the "type of species"—should have been said type of *T. naïs*—but this of course is an error, committed when Wallace's birds were labelled afterwards.)
Tanysiptera dea dea Nov. Zool. 1901. p. 158.

Hab. Amboina, Ceram, Manawoka, Goram, Boeno, Manipa.

b. Tanysiptera hydrocharis riedeli Verr.

Tanysiptera riedeli Verreaux, *Nouv. Arch. Mus. Bull.* ii. p. 11. Pl. III (Mysori).
Tanysiptera dea riedeli Nov. Zool. 1901. p. 158.

Hab. Biak and Korrido (Schouten Islands or Misori) in Geelvink Bay.

c. Tanysiptera hydrocharis ellioti Sharpe.

Tanysiptera ellioti Sharpe, *P. Z. S.* 1869. p. 630. (Locality doubtful: hitherto only known from Koffiao.)
Tanysiptera dea ellioti Nov. Zool. 1901. p. 159.

Hab. Koffiao, near Mysol.

d. Tanysiptera hydrocharis rosseliana Tristr.

Tanysiptera rosseliana Tristram, *Ibis* 1889. p. 557 (Rossel Island).
Tanysiptera dea rosseliana Nov. Zool. 1901. p. 159.

Hab. Rossel Island, Louisiade group.

e. Tanysiptera hydrocharis margarethae Heine.

Tanysiptera Margarethae Heine, *J. f. O.* 1859. p. 406 (no exact locality: I substitute Batjan!).
Tanysiptera dea margarethae Nov. Zool. 1901. p. 159.

Hab. Northern Moluccas: Batjan, Halmahera, and Morty.

f. Tanysiptera hydrocharis acis Wall.

Tanysiptera acis Wallace, *P. Z. S.* 1863. pp. 23. 24 (Buru).
Tanysiptera dea acis Nov. Zool. 1901. p. 160.

Hab. Buru.

g. Tanysiptera hydrocharis obiensis Salvad.

Tanysiptera obiensis Salvadori, *Ann. Mus. Civ. Genova* x. p. 302 (1877: Obi).
Tanysiptera dea obiensis Nov. Zool. 1901. p. 160.

Hab. Obi Islands, Central Moluccas.

h. Tanysiptera hydrocharis hydrocharis Gray.

Tanysiptera hydrocharis Gray, *P. Z. S.* 1858. pp. 172. 190 (Aru Islands).
Tanysiptera dea hydrocharis Nov. Zool. 1901. p. 160.

Hab. Aru Islands.

i. Tanysiptera hydrocharis galatea Gray.

Tanysiptera galatea Gray, *P. Z. S.* 1859. p. 154 (New Guinea).
Tanysiptera dea galatea Nov. Zool. 1901. p. 160.

Hab. All over New Guinea (as far as explored), with the exception of the northern coast from Takar to Astrolabe Bay, and Waigiu and Salwatty.

j. Tanysiptera hydrocharis meyeri Salvad.

Tanysiptera meyeri Salvadori, *Ann. Orn. Pap.* i. p. 54 (1889: hab. in Nova Guinea, prope Kafu).
Tanysiptera dea meyeri Nov. Zool. 1901. p. 161.

Hab. Northern New Guinea from Takar and Kafu to the Astrolabe Bay.

37. **Halycon diops** (Temm.).

Alcedo diops Temm., *Pl. Col.* 272 (1824: "Amboina, Timor et Celèbes"—errore! Typus ex Ternate in Mus. Ludg., cf. Schleg., *Mus. Pays-Bas, Alcedines* p. 41.

Batjan: Wallace, Bernstein, Beccari, Guillemard, Platen, Vorderman, Kükenthal, Doherty, Waterstradt.

38. **Halcyon saurophaga** Gould.

Halcyon saurophaga Gould, *P. Z. S.* 1843. p. 103 (New Guinea).

Batjan: Bernstein, Platen, Doherty.

39. **Halycon chloris** (Bodd.).

Batjan: Wallace, Bernstein, Platen, Waterstradt.

40. **Halcyon sanctus** Vig. & Horsf.

Batjan: One specimen from Waterstradt in Mus. Tring.

41. **Eurystomus orientalis australis** Swains.

Batjan: Wallace, Bernstein, Guillemard, Platen, Kükenthal, Doherty, Waterstradt.

42. **Eurystomus azureus** Gray.

Eurystomus azureus G. R. Gray, *P. Z. S.* 1860. p. 346 (Batjan, type in Brit. Mus.).

Batjan: Wallace, Bernstein, Guillemard, the latter's single specimen (*P. Z. S.* 1885. p. 569) now in the Tring Museum.

The bill is "bright coral red" in the adult bird; the figure on Pl. III., *Cat. B. Brit. Mus.* xvii., is that of a young bird, but there is a good plate of the adult bird in Dresser's monograph of the *Coraciidae*.

43. **Aegotheles crinifrons** (Bp.).

Batrachostomus crinifrons Bonaparte, *Consp. Av.* i. p. 57 (1850: no locality! Typical locality Halmahera, the type specimen in the Leyden Museum being labelled Halmahera).

Batjan: Wallace.

♂ Batjan, August 1897. "Iris deep brown, feet pale flesh-colour, bill above brownish, below pale flesh-colour" (W. Doherty). This specimen differs very much from the specimens described by Salvadori (*Orn. Pap.* i. p. 521) and by me (*Cat. B.* xvi. p. 646, and Tierreich, *Lief.* 1. p. 10) in detail. It is above brownish

black, finely vermiculated with reddish brown, quills deep brown, outer webs with pale rufous-brown spots, tail dusky with pale reddish brown and blackish cross-bars; the underside is salmon-buff, each feather with two or three blackish shaft-spots, here and there vermiculated with blackish. I think this must be an adult *male*, the adult *females* and young being rufous-cinnamon, as described *l. l.c.c.*

As this species was hitherto unknown in a brown phase (whether they are all *females* and immature birds, or whether the adult bird is dimorphic, occurring in a red and in a brown plumage), this specimen obtained by Doherty is of great interest.

Megotheles crinifrons differs widely from *Ae. insignis* (Arfak, New Guinea), principally in the entire absence of round whitish spots on the back, in the buff, not whitish patches on the underside. *Ae. crinifrons* is only known from Halmahera and Batjan, *Ae. insignis* from a single specimen from Arfak, New Guinea (cf. *Ibis* 1896. p. 375. Pl. VI.). *Ae. pulcher* Hartert (*Bull. B. O. Club* viii. p. viii. October 1898) is the representative of *Ae. insignis* in the mountains of British New Guinea. It is larger, and differs in some details of markings, but should probably only be a subspecies. It would be most interesting to find a brown "phase" of *Ae. insignis* and *Ae. pulcher*, as we now know it to occur in *Ae. crinifrons*.

44. **Macropteryx mystacea** (Less.).

Batjan: Wallace, Bernstein, Beccari, Guillemard, Platen, Doherty.

45. **Collocalia esculenta** (L.).

Batjan: Wallace.

46. **Hirundo rustica gutturalis** Scop. (Migrant).

Batjan: Wallace, Platen. (Doubtless as a winter visitor only.)

47. **Hirundo javanica** Sparrm.

Batjan: Bernstein, in Mus. Lugd.

48. **Monarcha inornata** (Garnot).

Muscicapa inornata, Garnot, *Voy. Coq. Atl.* Pl. XVI. fig. 2 (1826), text i. 2. p. 591 (1828: Dorey, New Guinea).

Batjan · teste Finsch.

49. **Monarcha bimaculata** Gray.

Monarcha bimaculata G. R. Gray, *P. Z. S.* 1860. p. 352 ("Batchian and Gilolo"—typ. loc. Batjan, types in Brit. Mus.).

Batjan: Wallace, Platen, Kükenthal, Doherty, Vorderman, Waterstradt. The latter two gentlemen sent a large series each. Among Doherty's specimens many are in the plumage of the supposed adult *male*, marked by Doherty as *females*, and with the following note: "The sex-colouring seems reversed in this species." It is hardly probable that such a careful naturalist as Doherty made a mistake, as he deliberately called attention to the phenomenon; but some of the specimens, which are exactly like those marked as *females*, being marked as *males*, it is probable that the adult *males* and *females* are alike, those with a black throat (formerly supposed to be *females*) being young.

There can be no doubt whatever that "*Piezorhynchus morotensis*" * is the same

* *Cat. B. Brit. Mus.* iv. p. 423.

as *bimaculata*. Not only occur both forms, *i.e.* the one with the orange-rusty breast and the one with the white breast, on Morty Island, but also on Batjan and Halmahera, and we find every intergradation between the two. Moreover, exactly the same variation occurs in the allied *Monarcha bernsteini* on Obi.

50. **Monarcha chalybeocephalus nitens** (Gray).

I have already (*vide supra* in the article on the Birds of Obi) described the various races of *M. chalybeocephalus*. The form *nitens* was first described from Batjan, where it is common: Wallace, Bernstein, Guillemard, Platen, Doherty. Mr. Dumas obtained it also on Morty.

51. **Rhipidura tricolor** (Vieill.).

Muscicapa tricolor Vieillot, *Nouv. Dict. d'Hist. Nat.* xxi. p. 430 (1878: "Timor"—errore! ex coll. Maugé. I accept New Ireland, the typical locality for *M. melaleuca*, as the typical habitat).

Batjan: Wallace, Guillemard, Platen, Doherty. (Also obtained on Morty by Dumas.)

Though it has become customary to regard all the black and white "*Saulo-proctae*" from the Moluccas to Australia as belonging to one form, this is obviously wrong, if a large series is laid out and looked at. It strikes at once even the casual observer that those from Australia have smaller bills, and such is indeed the case. While I am not able to make any divisions between those from the Solomons, New Britain, New Ireland, and New Guinea to the Moluccas, I must separate the Australian form, which has to bear the name

Rhipidura tricolor motacilloides Vig. & Horsf.

(*Rhipidura motacilloides* Vig. & Horsf., *Trans. Linn. Soc.* xv. p. 248. 1826: type St. George R., Australia), as it differs constantly and strikingly by its smaller bill. In general its dimensions are slightly less all round, but nothing is so evident and constant as the smaller bill.

52. **Muscicapa griseisticta** Swinh.

Batjan: teste Finsch. (Morty: Dumas coll.)

53. **Muscicapula maculata westermanni** Sharpe.

Two adult *males* were obtained on Batjan, between 5000 and 7000 ft. high, in June and July 1902, by Mr. Waterstradt. This species was hitherto only known to extend eastwards as far as Celebes. Its occurrence in the Moluccan Islands extends its area considerably. It is doubtless only found on the high mountains.

54. **Muscicapula hyperythra pallidipectus** subsp. nov.

Muscicapula M. h. hyperythra dictae persimilis, ♂ differt gula pectoreque pallidioribus, hypochondriis olivascentioribus, ♀ supra obscuriore, schistaceo tincta, gula abdomineque pallidioribus, hypochondriis olivascentioribus.

Mr. John Waterstradt sent a large series of a *Muscicapula*, obtained on the mountains of Batjan, between 5000 and 7000 ft. high. These birds at a glance closely resemble the well-known *M. hyperythra*, of which I have a large series for comparison, but differ as follows: The *male* has the throat and breast paler orange-rufous, the abdomen distinctly more whitish, the flanks darker, more olivaceous.

The *female* is similar to that of *M. hyperythra hyperythra*, but the upperside is darker, tinged with slate-colour, the throat and abdomen more whitish, flanks darker, more olivaceous. The dimensions are the same as in *M. h. hyperythra*.

Mr. Waterstradt found also the young, just fledged. They are blackish above, spotted with orange-buff like a young robin, below buff with blackish bases and edges to most of the feathers.

Type: ♂ ad., Batjan, 5000—7000 ft., July 1902, John Waterstradt coll. No. "B. 478."

William Doherty sent one *female*, obtained at an elevation of 4000 ft.

The discovery of this little Flycatcher on the mountains of Batjan is of considerable interest. It shows again that there is an Indo-Malayan element on the high ranges of the Moluccas.

Muscicapula luzoniensis and *M. nigrorum* from the Philippines (the *males* of which are hardly separable from each other) differ in the absence of the black chin, which is rather well developed in *pallidipectus*, and have less white above the lores.

55. **Rhipidura torrida** Wall.

Rhipidura torrida Wallace, *P. Z. S.* 1865. p. 477. Pl. XXVIII. (Ternate).

Obtained by Doherty and Waterstradt on Batjan. This *Rhipidura* differs from *Rh. rufifrons* of Australia in the much deeper brown colour of the head and back, and also darker cinnamon rump and base of tail, and much shorter wing.

♂ ad., Batjan, 2000 ft. "Iris deep brown; feet blackish; bill blackish, nostrils pale, base of lower mandible whitish" (W. Doherty).

56. **Myiagra galeata** Gray.

Myiagra galeata G. R. Gray, *P. Z. S.* 1860. p. 352 (Batjan).

Batjan: Wallace, Bernstein, Platen, Doherty. Doherty sent six *females* from Batjan. Dumas obtained it on Morty.

57. **Cryptolopha everetti waterstradti** Hart.

Cryptolopha everetti waterstradti Hartert, *antea* p. 9 (Typ. loc. Batjan).

Mr. Waterstradt sent a good series from elevations between 5000 and 7000 ft. I have described this form as above in my article on the Obi birds, Waterstradt having also obtained it on Obi Major.

58. **Graucalus magnirostris** Bp.

Graucalus magnirostris Bonaparte (ex Forsten MS., Mus. Ludg.), *Consp. Av.* i. p. 354 (1850: Gilolo).

Batjan: Bernstein, Kükenthal, Platen, Doherty, Waterstradt.

♂: "Iris dark brown, bill and feet black" (W. Doherty).

(The statement of the occurrence of *G. magnirostris* on Waigiu by Guillemard, *P. Z. S.* 1885. p. 633, is doubtless due to a mistake in labelling. We have a skin of *Lycocorax pyrrhopterus* labelled as coming from Obi!).

59. **Graucalus papuensis melanolora** (Gray).

Batjan: Wallace, Beccari, Platen, Vorderman, Doherty, Waterstradt. "Iris deep brown, bill and feet black" (W. Doherty).

60. Edoliisoma melanotis (Gray).

Campephaga melanotis G. R. Gray, *P. Z. S.* 1860. p. 353 (Batjan and E. Gilolo, Wallace coll. Typical locality, Batjan, this being the first-named island). (Sharpe and Salvadori—cf. *Cat. B.* iv. p. 353; Salvad., *Orn. Pap.* ii. p. 156—have rejected the name *melanotis* on account of the existence of a *Graucalus melanotis* Gould, *P. Z. S.* 1837. p. 143, which was afterwards, by Gray, *Gen. B.* i. p. 283, placed in the genus *Campephaga*. This unfortunate *Graucalus melanotis* being a synonym of *Graucalus melanops* Lath., and thus belonging to a different genus, *Graucalus*, there is not the slightest reason to reject the name *melanotis* for the *Edoliisoma* of the northern Moluccas).

Common: Wallace, Platen, Doherty, Waterstradt. ♂♀: "Iris deep brown, feet black, bill black, the latter more slaty in the *female*" (W. Doherty).

There is a great variation in the young birds, some on the under surface moulting from a rufous-brown, others from a pale buff colour, to the slaty dress of the adult *male*. A *female* from Morty (Dumas coll.) has rather wide black cross-bars.

61. Lalage aureus (Temm.).

Ceblephyris aureus Temm., *Pl. Col.* 382 (1825: "Timor"—errore! This species does not inhabit Timor nor—cf. Müll, *Land-en Volkenkunde* p. 190—Celebes! Reinwardt has collected the type, and it must have come from the Moluccas. I substitute as the original locality: Ternate).

Batjan: Wallace, Platen, Doherty (large series).

62. Artamus leucorhynchos (L.).

Batjan: Wallace, Bernstein, Platen, Doherty, Waterstradt.
(Dumas sent it from Morty.)

63. Dicrurus atrocaeruleus Gray.

Dicrurus atrocaeruleus G. R. Gray, *P. Z. S.* 1860. p. 354 ("Batchian and E. Gilolo." Typical locality therefore: Batjan).

Batjan: Wallace, Platen, Kükenthal, Doherty, Waterstradt.

Two Morty specimens, sex unknown, collected by Dumas, are considerably smaller. If this is shown to be constant in a larger number of specimens, then the Morty form must be separated as a new subspecies.

64. Pachycephala mentalis Wall.

Pachycephala mentalis Wallace, *P. Z. S.* 1863. p. 30 (Typical locality: Batjan).

Common on Batjan: Wallace, Platen, Kükenthal, Doherty (large series), Waterstradt.

65. Pachycephala cinerascens Salvad.*

Pachycephala cinerascens Salvadori, *Ann. Mus. Civ. Gen.* vii. 1878. p. 332 (Typical locality: Ternate).

This interesting little *Pachycephala*, described from Ternate, and also known from Tidore and Morty, was found by Doherty plentiful on the hills of Batjan, from 2000 to 4000 ft. elevation. The adult is darker ashy above, the upper breast

* Dr. Guillemard (*P. Z. S.* 1885. p. 571) mentions as coming from Batjan a specimen of *Colluricincla megarhyncha*, but himself doubts the accuracy of the locality. There can be no doubt that a wrong label got attached to that specimen, as in the case of a *Graucalus magnirostris* (*vide* antea No. 58), and in that of a *Lycocorax pyrrhopterus* in the Tring Museum, which is erroneously labelled as having been collected on Obi. (Cf. Salvadori, *Ibis* 1886. p. 154.)

is dark grey, throat and abdomen paler, whitish grey. The *female*, and apparently also the immature *male*, is somewhat, but not much, paler above ; the under surface is more uniform, pale grey with a rufescent wash ; throat, breast, and sides with narrow deep ashy shaft-lines. Doherty described the iris as deep brown, the bill and feet as black.

Doherty sent ten specimens. Waterstradt, though the majority of his birds were taken in the mountains, did not send this rare species.

66. **Cinnyris auriceps** (Gray).*

Nectarinia auriceps G. R. Gray, *P. Z. S.* 1860. p. 348 ("Batchian and Ternate," in British Museum, typical locality Batjan).
Cinnyris morotensis Shelley, *Mon. Nectar.* p. 101. Pl. 34. fig. 2 (1877 : Morty).

Batjan : Wallace, Bernstein, Guillemard, Platen, Kükenthal, Doherty (large series), Waterstradt.

Dumas sent typical *C. auricaps* from Morty. Shelley's "*Cinnyris morotensis*" does not represent a local subspecies, but only an aberration. If large series of these birds are examined, variations like Shelley's "*C. morotensis*" from the ordinary type will be frequently found. We have a specimen approaching it, others are in the Turati collection, and, though their locality is uncertain, there is no reason to suppose that they are from Morty, since our Morty examples are not distinguishable from those from Ternate and Batjan. Among *C. proserpina* and *C. christinae* I find similar and almost more striking variations, and it is therefore evident that *C. morotensis* is only referring to an aberrant *C. auriceps*.

67. **Cinnyris frenata** (S. Müll.).

Nectarinia frenata S. Müller, *Land-en Volkenkunde* p. 173 (1843 : W. coast of New Guinea).

Batjan : Wallace, Bernstein, Guillemard, Platen, Doherty, Waterstradt.
(Dumas sent several specimens from Morty.)

68. **Dicaeum schistaceiceps** Gray.

Dicaeum schistaceiceps G. R. Gray, *P. Z. S.* 1860. p. 349 ("Batchian and E. Gilolo"—typical locality Batjan, type in British Museum).

Batjan : Wallace, Doherty, Waterstradt, low country.

(Mr. Dumas sent a pair from Morty. They are apparently duller, without so much of a golden tinge on the rump, and also duller, less golden, on the flanks. A larger series would probably show that the Morty birds are subspecifically separable.)

69. **Myzomela simplex** Gray.

Myzomela simplex G. R. Gray, *P. Z. S.* 1860. p. 349 (Batjan, Gilolo : typ. loc. Batjan).

Batjan : Wallace, Doherty, Waterstradt. No elevation is marked on Waterstradt's labels, but Doherty got this species only at heights of 4000 ft. The *female*, though apparently not different in colour from the *male*, is very much smaller. *Males* have the wing 64—66, *females* only 56—58 mm. long.

Dumas sent a specimen, evidently a *male*, from Morty, which differs from our series of ten *M. simplex* from Batjan in having a darker, sooty-brown throat and

* The alleged occurrence on Waigiu (Nehrkorn, *J. f. O.* 1885. p. 33) is due to an inadvertent mistake. Cf. Salvad., *Ibis* 1886. p. 152.

a narrow rosy-red band across the chest. In *M. simplex simplex* there are sometimes light reddish edges to some of the chest-feathers, but they are paler and less conspicuous than in this Morty bird. The abdomen and back of the Morty bird are also somewhat darker, more washed with soot-colour. Size like that of *males* of *M. simplex simplex*: wing 63 mm. I propose to call the Morty form

Myzomela simplex mortyana subsp. nov.

Type of *Myzomela simplex mortyana*: No. M. 59, Morty Island, Dumas coll., in Mus. Rothschild.

(Presumably an adult *male*, but sex not marked by the collector.)

70. **Myzomela batjanensis** sp. nov.

♂ ad. *Myzomela* capite, collo, tergo medio, uropygio, supracaudalibus rubris; loris macula nigra; alis nigris, remigum tectricumque majorum pogoniis externis flavidis, remigum pogoniis internis albo marginatis; pectore olivascente; abdomine albescente, olivaceo tincto; subcaudalibus olivaceis, flavescente marginatis; cauda nigra; subalaribus albis. Al. 57—58, caud. 38—40, rostr. 13½—14, tars. 14—15 mm.

♂ juv. Notaeo olivaceo-brunneo, uropygio subcaudalibusque rubro interspersis; fronte, mento, regione malari rubris; gastraeo pallide flavescente, jugulo pectoreque cinereo tinctis.

Hab. In montibus insulae Batjan dictae.

This new form of the beautiful genus *Myzomela* is above colonred like *M. chloroptera*, *M. sanguinolenta*, *M. boiei*, and it will probably be best to consider these all as subspecies of one form; but I cannot conclude about this without a closer study than I can at present afford.

The most similar form to my *M. batjanensis* is *M. chloroptera* of Celebes; but the latter is easily distinguished by the greater extension of the red below, where it covers the entire chest, and the red of *M. chloroptera* is not quite so deep. From *M. boiei* the new form differs by the absence of the black antepectoral band, and by the better development of the yellowish edges to the outer webs of the quills. From *M. sanguinolenta* it likewise differs by the lesser extent of the red underneath, only the throat being red, while *M. sanguinolenta* has the whole breast overspread with red, also the abdomen much more whitish.

Mr. Waterstradt found *M. batjanensis* only on the mountains between 5000 and 7000 ft. Doherty did not come across it.

Type of *M. batjanensis*: ♂ ad., Batjan, June 1902, 5000—7000 ft. above the sea, No. "B. 579" Waterstradt coll., in Mus. Rothschild.

71. ? **Philemon fuscicapillus** (Wall.).

According to Finsch (*Neuguinea* p. 165) and Gray's *Handlist* this species occurs on Batjan, but as apparently no collector has yet found it there, these statements require confirmation.

72. **Melitograis gilolensis** (Bp.).

Tropiderhynchus gilolensis Bonaparte, *Consp. Av.* i. p. 349 (1850: Gilolo = Halmahera, descriptio pessima).

Batjan: Wallace, Guillemard, Platen, Doherty, Waterstradt. Waterstradt's birds are partly marked "5000—7000 ft.," while Doherty stated no elevation, consequently he must have got them in the lowlands.

(We have also a specimen shot on Morty by Dumas. It agrees perfectly with *M. gilolensis*, but is very small—wing only 97 mm. It is probably a *female*.)

73. **Zosterops atriceps** Gray.

Zosterops atriceps G. R. Gray, *P. Z. S.* 1860. p. 350 (Batjan).

Batjan: Wallace, Platen, Kükenthal, Doherty, Waterstradt, low country.

"Iris deep brown, feet pale leaden grey (flesh-colour, tinged with purplish), bill black, basal half of lower mandible yellow" (W. Doherty).

74. **Zosterops obstinatus** Hart.

Zosterops obstinatus Hartert, Nov. Zool. 1900. p. 238 (Batjan and Ternate, type from Batjan).

This form is nearest to *Z. buruensis*, from which it differs in the obviously more greenish, less golden olive, colour of the upper surface and edges to the quills, by the ear-coverts being green, of the same colour as the back, not darker and not tinged with brown, by the smaller loral black spot, and generally smaller dimensions.

Wing 57—60, in one 62 mm. Evidently the larger examples are *males*. The Buru birds have the wing from 58 (♀) to 62 and 64 mm. (♂).

A larger series from Ternate must be studied to make sure that the Ternate form is exactly the same as *Z. obstinatus* from Batjan. *Z. obstinatus* is a mountain form. Doherty found it on Batjan 4000 ft. high, on Ternate from 3000 to 4000. Waterstradt sent a large series from Batjan, obtained at elevations estimated to be between 5000 and 7000 ft.

75. **Criniger chloris** Finsch.

Criniger chloris Finsch, *J. f. O.* 1867. pp. 12, 36 ("Halmahera, typus, auch auf Batjan und Morotai").

Batjan: Wallace, Bruijn, Kükenthal, Platen, Vorderman, Doherty, Waterstradt. Specimens from Halmahera and Morty (Dumas coll.) cannot be separated.

76. **Pitta rufiventris** (Heine).*

Coloburis rufiventris Heine, *J. f. O.* 1859. p. 406 (loc. ignot. I substitute Batjan as the typical habitat).

Batjan: Wallace, Guillemard, Kükenthal, Platen, Doherty, Waterstradt.

Count Berlepsch's notion (*Abh. Senckenb. Ges.* xxv. 2. p. 313) that examples from Batjan had apparently a lighter red abdomen than Halmahera ones is not in the least confirmed by our series, and can only have been conceived from somewhat faded examples.

77. **Acrocephalus orientalis** (Temm. & Schleg.) (Migrant!)

Batjan: Wallace.

* Dr. Vorderman (*Natuurk. Tijdschr. voor Nederl. Indië* lviii. 2. p. 225. 1898) mentions having received a specimen of *Pitta maxima* from Batjan. Though it is possible that a specimen may fly over occasionally from the near Halmahera, we have been informed by various collectors that *Pitta maxima*, though common on Halmahera, does not occur on Batjan, and we may therefore safely presume that Prince Oesman, who sent some skins from Batjan to Dr. Vorderman after his departure from that island, added this beautiful *Pitta* to the collection, but that it was brought over from Halmahera, and not actually shot on Batjan.

78. **Locustella fasciolatus** (Gray) (Migrant).

Acrocephalus fasciolatus G. R. Gray, *P. Z. S.* 1860. p. 349 (Batjan !)

Batjan : Wallace, Platen, Waterstradt, ♂ ad., 4. v. 1899.

Also obtained on Morty (1 ad. and 2 juv.) by Dumas. (A migrant, winter visitor, from Northern Asia.)

79. **Phylloscopus borealis** (Blas.) (Migrant).

Batjan : Wallace, Platen, Doherty. (Migrant from Northern Asia.)

80. **Phyllergates everetti dumasi** Hart. (an subsp. nov. ?)

Phyllergates everetti dumasi Hartert, *Bull. B. O. Club* viii. p. 31 (1899 : Buru).

Two specimens obtained by Waterstradt's men on the mountains of Batjan, between 5000 and 7000 ft. above the sea, seem to be the same as *P. e. dumasi* from the mountains of Buru. The hindneck and ear-coverts appear to be rather slaty-greyish, and the lores rather dusky, but the two specimens are not very well prepared, and the evidence insufficient to found a new subspecies. In any case, whether true *dumasi* or not, the occurrence of the genus *Phyllergates* on the mountains of a second island in the Moluccas is of considerable interest. (Cf. Nov. Zool. 1900. p. 238.)

81. **Motacilla boarula melanope** Pall. (Migrant.)

Batjan : Meyer, Platen.

82. **Motacilla flava** L. (Migrant).

Batjan, av. jr., Platen. (Nehrkorn, *J. f. O.* 1894. p. 159.)

83. **Anthus gustavi** Swinh. (Migrant).

Batjan : Wallace, Guillemard.

84. **Munia molucca** (L.).

Batjan : Wallace, Platen, Kükenthal, Doherty.

85. **Erythrura trichroa modesta** Wall.

[*Fringilla trichroa* Kittlitz, *Mém. Acad. Petersb.* ii. p. 8. Pl. X (1835 : Kushai).]
Erythrura modesta Wallace, *P. Z. S.* 1862. p. 351 (Ternate).
Erythrura trichroa modesta Rothsch. & Hart., Nov. Zool. 1900. p. 6.

Batjan : Finsch, native collections.

86. **Sturnia violacea** (Bodd.) (Migrant).

One specimen was obtained by Wallace on Batjan, but nobody else has found it again in the Molnccan archipelago.

87. **Calornis metallicus** (Temm.)

Lamprotornis metallicus Temm., *Pl. Col.* 266 (1824 : Amboina).

Batjan : Wallace, Waterstradt (juv.).

88. **Calornis obscura** (Bp.)

Lamprotornis obscura Bonaparte (ex Forsten MS. in Mus. Lugd.), *Consp. Av.* i. p. 417 (1850 : Gilolo).

Batjan : Wallace, Bernstein, Guillemard, Platen, Vorderman, Doherty, Waterstradt.

89. **Corvus validus** Bp.

(*Antea* p. 14)

Batjan : Wallace, Bernstein, Platen, Kükenthal, Waterstradt (2).

(Dumas obtained a specimen on Morty.)

It is strange that nobody came across *C. orru* on Batjan, though on Morty both *C. orru* and *validus* were found.

90. **Lycocorax pyrrhopterus** (Bp.).

Corvus pyrrhopterus Bonaparte, *Consp. Av.* i. p. 384 (1850 : Gilolo).

The first collector to obtain this bird on Batjan was Dr. Platen. Dr. Vorderman shot two himself on Batjan. Doherty obtained a fine series of eight examples, and a few were shot by Waterstradt's hunters. There is no difference between the *males* and *females*, though some of the birds sexed " ♀ " are smaller than those marked " ♂." Doherty marked the iris in the *male* as " deep crimson," in the *female* as "dull crimson " ; bill and feet black in both sexes.

91. **Semioptera wallacii** Gould.

Paradisea wallacii Gray, *P. Z. S.* 1859. p. 130 (descr. nulla !)
Semioptera wallacii Gould, *B. Austr. Suppl.* Pl. III. (1859) and text. (Descr. princeps.)

Batjan : Wallace, Bernstein, Beccari, Guillemard, Vorderman, Platen, Kükenthal, Doherty, Waterstradt.

Doherty sent many specimens from the month of August 1897. They were then in full plumage, though more or less worn. Some young birds had already begun to moult into the plumage of the adults. Doherty marked the bare parts as follows : ♂ ad. : " Iris deep brown, feet orange and orange-red, bill pale brownish." ♀ : " Iris deep chestnut, feet bright orange-ochreous, bill purplish grey, brownish at base.

Semioptera wallacii halmaherae Salvad. is easily distingnished by the darker back and crown in both sexes, longer green elongated pectoral plumes, and darker green abdomen.

92. **Ptilinopus superba** (Temm.).

Batjan : Wallace, Bernstein, Platen, Kükenthal, Doherty, Waterstradt.

93. **Ptilinopus monacha** (Reinw.).

Batjan : Wallace, Bernstein, Platen, Kükenthal, Doherty.

(On p. 160, *J. f. O.* 1894, Mr. Nehrkorn quotes a *male* of *Ptilopus nanus* as having occurred on Batjan. The author informed me (in litt.) that this is an error, and most kindly sent the specimen for my inspection. It is a *female* (correctly sexed) obtained by Platen on Waigiu in January 1884. It agrees perfectly with *females* from New Guinea, but is much smaller. A series might show that Waigiu has a smaller form than Papua.)

94. **Ptilinopus hyogastra** (Reinw.)

Batjan : Wallace, Bernstein, Platen, Doherty, Waterstradt.

95. **Megaloprepia formosa** Gray.

Carpophaga (*Megaloprepia*) *formosa* G. R. Gray, *P. Z. S.* 1860. p. 360 (E. Gilolo).

Batjan : Bernstein, Doherty, Waterstradt.

Evidently a bird of the mountains. Wallace and Platen did not come across it on Batjan; Doherty got a single specimen, but Waterstradt sent a fine series from the mountains between 5000 and 7000 ft.

96 **Carpophaga perspicillata** (Temm.).

Batjan : Wallace, Bernstein, Platen, Kükenthal, Doherty.

97. **Carpophaga basilica** (Bp.).

Ducula basilica Bonaparte, *Consp. Av.* ii. p. 35 (1854, ex Temminck & Sundevall, MS., hab. Gilolo).

Batjan : Wallace, Bernstein, Guillemard, Platen, Kükenthal, Doherty, Waterstradt.

98. **Myristicivora bicolor** (Scop.).

♂ ad., Batjan, August 1897, W. Doherty coll.

This specimen, with outer primaries in moult, is a typical *M. bicolor*. In Nov. Zool. 1901. p. 116, Mr. Rothschild and I recorded also a young ♂, collected by Dr. Platen in Batjan, but erroneously, the specimen of Platen being a young *M. melanura*.

99. **Myristicivora melanura** Gray.

Carpophaga (*Myristicivora*) *melanura* G. R. Gray, *P. Z. S.* 1860. p. 361 ("Batchian and Gilolo," type in Brit. Mus. ex Batjan).

Batjan : Wallace, Bernstein, Platen, Waterstradt.

The ♂ juv., collected on Batjan 30. iii. 1893 by Dr. C. Platen, is a young *M. melanura*, as quite correctly recorded by Nehrkorn, *J. f. O.* 1894. p. 160. In the young *melanura* the outer rectrices are differently coloured than in the adult ; the black is less intense, the white is less sharply separated and reaches farther towards the tip, the black patches on the vent are less developed. These peculiarities probably caused our erroneously recording Platen's bird as *M. bicolor*.

100. **Columba albertisii exsul** subsp. nov.

Mr. Waterstradt sent three specimens, one marked "♂," the other two marked "♀,"* of a Pigeon most closely allied to *Columba albertisii*,† but evidently with a slate-coloured instead of dark chestnut upper throat, darker slate-coloured crown and hindneck, longer wing, and perhaps darker breast. Unfortunately all three examples from Batjan are perhaps *females* or immature and more or less in moult,

* It is, however, probable that all three are *females*, and I believe that adult *females* of *C. albertisii* resemble the young.

† *Gymnophaps albertisii* Salvad., *Ann. Mus. Civ. Gen.* vi. p. 86 (1874 : New Guinea) ; *Gymnophaps albertisii* auct. ; *Columba albertisii* Rothsch. & Hart., Nov. Zool. 1901. p. 117.

and the young typical *albertisii* (? and *females*) having a slaty throat and being darker and clouded with grey underneath, these Batjan specimens closely resemble young typical *albertisii*. The young *C. albertisii albertisii*, however, have a rufous forehead, which is only to be seen in one of the Batjan specimens. Nevertheless, the fresh sprouting feathers on the upper throat being dark slate, I am convinced that they are always, throughout all ages, slate-coloured. The wings also are very long, though partly in moult, and the crown and hindneck to the interscapulium are conspicuously darker. Wings 216—220 mm. The greater size is the more remarkable, as we have probably no adult *male* yet from Batjan, and *females* of typical *albertisii* are smaller than *males*.

One of the Batjan examples is marked as having been shot 3000 ft. above the sea. The others have no elevation marked on the labels, and should therefore, if the labelling is done with care, have come from the lowlands.

The island of Batjan is, of course, quite out of the range of *Columba* (*Gymnophaps*) *albertisii*, which is only known from New Guinea (Papua) itself. Therefore (unless we believe that it has been introduced by Malays) the entirely new habitat alone should suggest that the Batjan race is different. In view of the occurrence of *Columba mada* Hart. on Buru (cf. *Bull. B. O. Club* viii. p. 33 and Nov. Zool. 1900. p. 241), the existence of another *Columba* still nearer *albertisii* on the Molnccas is not quite so surprising.

Type of *Columba albertisii exsul*: "♀" Batjan, June 1902, 3000 ft., No. B. 231, Waterstradt coll., in Mus. Rothschild, Tring.

101. **Columba halmaheira** (Bp.).

Janthaenas albigularis (nomen nudum, descr. nulla!) Bonaparte, *Compt. Rend.* xxxix. p. 1105, 1854.
Janthaenas halmaheira Bonaparte, *Consp. Av.* ii. p. 44 (1854: Gilolo, Ceram. Typical locality therefore Gilolo = Halmahera).

(It is incomprehensible to me that the name *albigularis*, published without an attempt at a description, could become generally accepted for this pigeon. In the *Consp. Av.* p. 44, Bonaparte names this bird *J. halmaheira*, and gives a sufficient diagnosis, mentioning that it is the *Carpophaga albigularis* Temm. *nec* Gray (*sic*) in Mus. Lugdun.)

Dr. Platen obtained this species on Batjan, where it seems to be rare (Nehrkorn, *J. f. O.* 1894. p. 160).

102. **Reinwardtoena reinwardtsi** (Temm.).

(Cf. Nov. Zool. 1900. p. 241, 1901. p. 126).

Batjan: Wallace, Bernstein, Powell & Guillemard, Platen, Waterstradt.

103. **Macropygia amboinensis batchianensis** Wall.

(Cf. Nov. Zool. 1901. p. 124).

Batjan: Wallace, Bernstein, Beccari, Platen, Doherty (4000 ft.), Waterstradt.

104. **Chalcophaps indica** (L.).

Batjan: Wallace, Bernstein, Platen, Doherty, Waterstradt.

105. **Caloenas nicobarica** (L).

Batjan: Wallace, Platen.

106. **Megapodius freycinet** Quoy et Gaim.

Batjan: Wallace, Bernstein, Guillemard, Kükenthal, Platen, Doherty, Waterstradt.

107. **Eulipoa wallacei** (Gray).

Megapodius wallacei G. R. Gray, *P. Z. S.* 1860. p. 362 (E. Gilolo).

Batjan: Finsch, Rosenberg.

108. **Rallina fasciata** (Raffl.).

Batjan: Platen (Nehrkorn, *J. f. O.* 1894. p. 160).

109. **Gymnocrex plumbeiventris** (Gray).

Batjan: Platen (Nehrkorn, *J. f. O.* 1894. p. 160).

110. **Poliolimnas cinereus** (Vieill.).

Batjan: Platen (Nehrkorn, *J. f. O.* 1894. p. 160).

111. **Amaurornis moluccana** (Wall.).

Batjan: Platen, Kükenthal. A specimen in the Genoa Museum has only a dealer's (Frank's) locality, and might just as well have come from another island.

112. ? **Glareola orientalis** Leach.

Batjan: fide Finsch (*Neuguinea* p. 181). Dr. Finsch states that *G. orientalis* occurs on Ternate, Halmahera, Batjan, and Amboina, all islands where it has not been found by any collector I know of. It is therefore probable that there is some mistake about this statement.

113. **Strepsilas interpres** (L.).

Batjan: teste Finsch (*l.c.*). Although the occurrence on Batjan rests, I believe, only on Dr. Finsch's statement, it is almost sure to occur there, since it visits nearly every island in the Eastern archipelago.

114. **Charadrius fulvus** Gm.

Batjan: Bernstein, Platen.

115. **Aegialites geoffroyi** (Wagl.).

Batjan: Bernstein, Platen.

116. **Tringoides hypoleucos** (L.).

Batjan: Wallace, Bernstein, Beccari, Platen, Waterstradt.

117. **Heteractitis incana** (Gm.).

Batjan: Wallace, Bernstein.

118. **Numenius phaeopus variegatus** (Scop.).

Batjan: Bernstein, Beccari, Platen.

119. **Numenius minutus** Gould.

Batjan: teste Wallace.

120. **Neoscolopax rochussenii** (Schleg.).

This most interesting woodcock (or snipe) has hitherto only been known with certainty from Obi Major, but Mr. Waterstradt has sent a skin, marked " ♀ " on the label, from Batjan, where it was shot in August 1902. It agrees fully with our skin from Obi (ex Lucas), but is not such a fine skin, being much shot on the wings, flanks, and belly. It is not stated at what altitude it was obtained, but this bird must be a mountain bird, or it would be less rare in collections, and we know that most of Mr. Waterstradt's birds were taken in the mountains. (*Antea*, p. 17.)

121. **Gallinago megala** Swinh. (Migrant.)

Gallinago megala Swinhoe, *Ibis* 1861. p. 343 (Amoy).

Batjan : Wallace, Bernstein, Platen.

122. **Ardea sumatrana** Raffl.

Batjan : Wallace, Bernstein.

123. **Demiegretta sacra** (Gm.).

Batjan : teste Finsch.

124. **Bubulcus coromanda** (Bodd.).

Batjan : Wallace (Mus. Brit.).

125. **Butorides stagnatilis** (Gould).

Ardetta stagnatilis Gould, *P. Z. S.* 1847. p. 221 (Port Essington).

I have no doubt that the bird mentioned as found on Batjan by Platen under the name of *Butorides javanica* (Nehrkorn, *J. f. O.* 1894. p. 161) is *B. stagnatilis*, this being the form occurring on Halmahera, Obi, etc.

126. **Dupetor flavicollis gouldi** (Bp.) (?).

[*Ardea flavicollis* Latham, *Ind. Orn.* ii. p. 701 (1790: India).]
Ardetta gouldi Bonaparte, *Consp. Av.* ii. p. 132 (1857: Australia).

Batjan : Wallace, Platen, Doherty, Waterstradt.

These *Dupetor* (or perhaps better *Xanthocnus* Sharpe) are very puzzling, and Dr. Sharpe's treatment (*Cat. B. Brit. Mus.* xxvi. pp. 246—251) is not quite satisfactory. One thing is certain : *D. flavicollis flavicollis* (India to China, etc.) has the upper throat always spotted with rufous (red), while the birds from Celebes, the Moluccas, New Guinea, and Australia have it spotted with blackish, deep brown or brown. Therefore at least one form must be separated from *flavicollis*, and the oldest name is *gouldi*, based on Australian specimens. Dr. Sharpe separates further a form which he calls *nesophilus* from Duke of York Island (and New Britain), while he calls all his examples from the Moluccas "*Dupetor melas*." This is, in my opinion, more or less incorrect. First of all, I am doubtful if the Australian form (with pale abdomen) is separable from that inhabiting Celebes, the Moluccas, New Guinea, and Duke of York Islands, which are doubtless all one and the same form—at least so far as we can make out from the material available in the British and Tring Museums. It is said that Australian examples have a paler abdomen, but it is, I believe, doubtful if this is not due to age or season. If Australian specimens differ constantly, then we have :

Dupetor flavicollis flavicollis, India to China and Malayan Islands.

Dupetor flavicollis nesophilus, Celebes, Moluccas, New Guinea and neighbouring islands.

Dupetor flavicollis gouldi, Australia.

The Batjan bird would in this case not be *D. f. gouldi*, but *D. f. nesophilus*. Dr. Sharpe wrongly includes Celebes in the range of typical *flavicollis*.

Then there is *D. melaena* * (Salvad.). This is possibly a melanistic aberration, or a different species. In no case, however, can it be correct to unite all Moluccan specimens under the name of *melaena*, as very few of them are all over black, while classing the Celebes (Sanghir) form with *flavicollis*, because not only are the (usual) Sanghir birds indistinguishable from those found on the Moluccas, but as the typical locality of *melaena* Sanghir must be taken.

The dark form (or species), *Dupetor melaena* (Salvad.), is known from Sanghir and the Moluccas. We have one collected by Dumas on Morty, and it will probably occur on Batjan as well.

127. **Nycticorax caledonica** (Gm.).

Ardea caledonica Gmelin, *Syst. Nat.* ii. p. 626 (1788 : Nova Caledonia).

Batjan : fide Finsch, Platen.

128. **Dendrocygna guttulata** Wall.

Dendrocygna guttulata Wallace, *P. Z. S.* 1863. p. 36 (Buru, Ceram, Celebes—type : Buru, in Brit. Mus.).

Batjan : fide Finsch et Platen coll.

129. **Tadorna radjah** (Garn.).

Anas radjah Garnot, *Voy. Coq. Zool.* i. 2. p. 602. Pl. 49 (1826-28 : Buru).

Batjan : Wallace, Platen, Waterstradt.

130. **Fregata ariel** (Gould).

Batjan : Bernstein, Platen. (Probably the recorded occurrence of *F. aquila* at Batjan should also be referred to *F. ariel* ?).

131. **Microcarbo sulcirostris** (Brandt).

Batjan : Wallace.

132. **Microcarbo melanoleucus** (Vieill.).

Batjan : Wallace.

133. **Sterna bergii** Licht.

Batjan : Wallace, Bernstein.

134. **Sterna melanauchen** Temm.

Batjan : fide Finsch.

135. **Podiceps tricolor** Gray.

Batjan : fide Finsch.

* *Ardetta melaena* Salvadori, *Atti R. Acad. Sci. Torino* xiii. p. 1187 (1878 : Sanghir ; Halmahera Typical locality Sanghir !).